

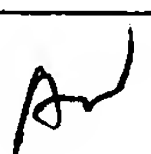


UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,266	07/17/2003	Steven Porter Hotelling	P3121/2867P	4212
7590 10/14/2004			EXAMINER	
SAWYER LAW GROUP			PAYNE, SHARON E	
P.O. Box 51418			ART UNIT	
Palo Alto, CA 94303			PAPER NUMBER	
			2875	
DATE MAILED: 10/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/622,266	HOTELLING, STEVEN PORTER	
	Examiner	Art Unit	
	Sharon E. Payne	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0703</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 1-10 are objected to because of the following informalities: 1) the word "panel" in line 4 of claim 1 should be "plate"; 2) the phrase "the spacebar" of lines 1-2 of claim 8 should be "a spacebar."

2. Claim 17 is objected to because of the following informality: the phrase "the spacebar" of lines 1-2 should be "a spacebar."

3. Claims 19-21 are objected to because of the following informality: the phrase "the panel" should be "the plate" in line 6 of claim 19. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4, 5, 9-14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu (U.S. Publication 2004/0017688 A1).

Regarding claim 1, Liu discloses an illumination device for backlighting panels. The device includes a plate for dispersing light (reference number 10), and at least one light-emitting diode (reference number 14, paragraph 0023) coupled to the plate for providing the dispersed light (Fig. 1), wherein the panel (plate) is coupled to a keyboard (Fig. 5), the at least one LED is

located under a portion of the keyboard such that when the at least one LED is illuminated, the light from the at least one LED does not distract a user (Fig. 5).

Concerning claim 2, Liu discloses the portion comprising an opaque portion (Fig. 5, paragraph 0029).

Regarding claim 4, Liu discloses a plurality of LEDs (Fig. 4).

Concerning claim 5, Liu discloses the LEDs being strategically placed to provide for even distribution of light (Fig. 4).

Concerning claims 9 and 18, Liu discloses a plurality of opaque portions on the keypads (Fig. 5, portion by reference number 40). (The strip in Fig. 5 can be divided into a plurality of portions.)

Regarding claim 10, Liu discloses a keyboard (Fig. 5), and a light guide panel (reference number 10) coupled to a keyboard (Fig. 5), the light guide panel comprising a plate (reference number 10) for providing the dispersed light (Fig. 4) and at least one LED (reference number 14) coupled to the plate for providing the dispersed light (Fig. 4), wherein the when the panel is coupled to a keyboard (Fig. 5) the at least one LED is located under a portion of the keyboard such that when the at least one LED is illuminated, the light from the at least one LED does not distract a user (Fig. 5).

Concerning claim 11, Liu discloses the portion comprising an opaque portion (Fig. 5).

Regarding claim 12, Liu discloses a clear sheet of material with a printed dot pattern for dispersing light (Fig. 4).

Concerning claim 13, Liu discloses a plurality of LEDs (Fig. 4).

Regarding claim 14, Liu discloses a plurality of LEDs strategically placed to provide for even distribution of light (Fig. 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Chiang (U.S. Publication 2004/0008505 A1).

Regarding claim 3, Liu does not disclose a plurality of optical fibers. Chiang discloses the plate including a plurality of optical fibers for dispersing light (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of fibers of Chiang in the apparatus of Liu to couple light to the edge of a light guiding plate. See Fig. 3A of Chiang.

8. Claims 6, 7, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Maeda et al. (U.S. Publication 2003/0058632 A1).

Regarding claim 6 and 15, Liu does not disclose a mechanism for reflecting light which escapes at the edge of the plate back into the plate. Maeda et al. discloses a mechanism for reflecting light which escapes at the edge of the plate back into the plate (Fig. 1A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mechanism of Maeda et al. in the apparatus of Liu for reflecting light back into the plate. See Fig. 1A of Maeda et al.

Concerning claim 7 and 16, Liu does not disclose jagged edges. Maeda et al. discloses jagged edges on an end of the plate (Fig. 1A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the jagged edges of Maeda et al. in the apparatus of Liu for reflecting light back into the plate. See Fig. 1A of Maeda et al.

9. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu.

Regarding claims 8 and 17, Liu does not specifically disclose the opaque portion comprising the space bar of the keyboard.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the function key of Liu with the spacebar to hide the LEDs.

10. Claims 19, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Chiang and Maeda et al.

Regarding claim 19, Liu discloses a plate for dispersing light (Fig. 2), a plurality of light-emitting diodes (reference number 14) coupled to the plate for providing the dispersed light (Fig. 1), wherein the panel is coupled to a keyboard (Fig. 5), the plurality of LEDs are under portions of the keyboard such that when the plurality of LEDs are illuminated, the light from the plurality of LEDs does not distract the user (Fig. 5). Liu does not disclose optical fibers or a mechanism for reflecting light which escapes at the edge of the plate back into the plate.

Chiang discloses the plate including a plurality of optical fibers (Fig. 3A).

Maeda et al. discloses a mechanism for reflecting light which escapes at the edge of the plate back into the plate (Fig. 1A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the optical fibers of Chiang in the apparatus of Liu to distribute light.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mechanism of Maeda et al. in the apparatus of Liu for reflecting light back into the plate.

Concerning claim 20, Liu discloses the portions comprising an opaque portion (Fig. 5).

Regarding claim 21, Liu does not disclose jagged edges. Maeda et al. discloses jagged edges of an end of the plate (Fig. 1A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the jagged edges of Maeda et al. in the apparatus of Liu to reflect light back into the plate.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

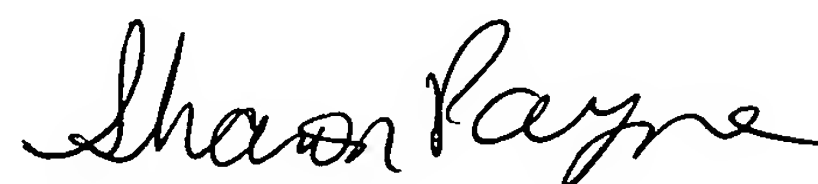
Reynolds (U.S. Patent 4,257,084) discloses a display device with jagged edges.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Payne whose telephone number is (571) 272-2379. The examiner can normally be reached on regular business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sep



Sharon Payne
Patent Examiner
Technology Center 2800